WHAT IS CLAIMED:

1. An isolated KUZ polypeptide comprising a sequence selected from SEQ ID NOS:2, 4, 6, 8 and 10 or a polypeptide domain thereof having at least 15 consecutive residues thereof and at least one KUZ-specific activity selected a KUZ-specific antigenicity and a KUZ-specific immunogenicity.

2. An isolated KUZ polypeptide made by a method comprising the following steps: incubating a host cell or cellular extract containing a recombinant nucleic acid encoding a polypeptide according to claim 1. under conditions whereby the polypeptide encoded by the nucleic acid is expressed and recovering the expressed polypeptide.

3. An isolated KUZ polypeptide encoded by a first nucleic acid specifically hybridizable to a second nucleic acid having a sequence defined by the corresponding opposite strand of SEQ ID NOS:1, 3, 5, 7 or 9.

4. A method of screening for an agent which modulates the binding of a KUZ polypeptide to a binding target, said method comprising the steps of:

contacting a polypeptide according to claim 1 with a binding target of said polypeptide in the presence of a candidate agent, and

detecting or measuring the binding of the polypeptide to said binding target, wherein a difference in the amount of said binding relative to the amount of binding in the absence of the candidate agent indicates that the agent modulates the binding of said polypeptide to said binding target.

5. A method of screening for an agent which modulates the cleavage of a Notch protein by a KUZ polypeptide, said method comprising the steps of:

contacting a polypeptide according to claim 1 with a Notch protein in the presence of a candidate agent, and

detecting or measuring the amount of Notch protein cleavage products thereby produced, wherein a difference in the identities or amount of Notch protein cleavage products thus produced relative to the identities or amount of said products in the absence of the

candidate agent indicates that the agent modulates the cleavage of the Notch protein by the KUZ polypeptide.

6. A method for modulating the interaction of a KUZ polypeptide according to claim 1 with a natural KUZ binding target comprising the step of exposing said polypeptide or said binding target to an agent that modulates the binding of said polypeptide to said binding target.

7. A method according to claim 6, wherein (i) said binding target is a Notch protein and/or (ii) said agent is selected from a KUZ-specific antibody, a dominant negative fragment of a KUZ polypeptide and a metalloprotease inhibitor.

8. A polypeptide according to claim 1, which is a dominant-negative mutant of a KUZ polypeptide.

9. A method for modulating the Notch signal transduction pathway in a cell comprising providing the cell with an agent which modulates activity of a KUZ polypeptide or function of a *kuz* gene, in which the agent is a polypeptide according to claim 1 provided to the cell by (i) intracellular expression from a recombinant nucleic acid or (ii) exogenous contacting of the cell.

10. An isolated deriviative of the polypeptide of claim 1, wherein one or more conservative amino acid substitutions have been made in said sequence or consecutive residues and said derivative has at least one of: one or more functional activities of a KUZ protein; one or more insertions, substitutions or deletions; and an ability to be secreted from a cell.

11. An isolated chimeric polypeptide comprising at least 15 contiguous amino acids of a KUZ polypeptide sequence joined to an amino acid sequence of a polypeptide other than a KUZ polypeptide.

12. A method for determining the effect of a candidate drug on a host deficient in KUZ polypeptide function comprising contacting a host deficient in KUZ polypeptide function with a candidate drug; and detecting the presence or absence of a physiological change in said host in response to the contacting of said candidate drug, wherein the candidate drug is a KUZ polypeptide according to claim 1.

13. The method of claim 12, wherein the host is a transgenic animal having at least one disrupted *kuz* allele.